AMENDMENT TO THE CLAIMS

1. (Currently Amended) A method for determining the limpness of sheet material, comprising the steps:

irradiating the sheet material with sound waves,

measuring the sound waves reflected by the sheet material and transmitted by the sheet material, and ~~emanating from the irradiated sheet material~~,

determining the limpness of the sheet material on the basis of the measured sound waves, wherein the step of determining the limpness of the sheet material comprises ~~both sound waves reflected by the sheet material and those transmitted by the sheet material are measured, and~~ forming a mathematical ratio of the reflected and the transmitted sound waves to determine the limpness.

2. (Previously Presented) The method according to claim 1, wherein the measuring of the reflected and the transmitted sound waves is taken from a common place on the sheet material.

3. (Previously Presented) The method according to claim 1, wherein a measure for a property of the sheet material other than the limpness-is determined and is taken into consideration when determining limpness.

4. (Previously Presented) The method according to claim 1, wherein a measure of the sound waves irradiating the sheet material is obtained and taken into consideration when forming the ratio for determining the limpness.

5. (Previously Presented) The method according to claim 1, wherein the frequency spectrum of the sound waves is measured and taken into consideration when determining the limpness.

6. (Previously Presented) The method according to claim 1, wherein the transit time of sound waves in the sheet material is measured and taken into consideration when determining the limpness.

7. (Previously Presented) The method according to claim 6, wherein for determining the transit time of sound waves in the sheet material, a measurement of the deflection of the sheet material is carried out.

8. (Previously Presented) The method according to claim 1, wherein defective areas of the sheet material are determined and these areas are not taken into consideration when determining the limpness.

9. (Previously Presented) The method according to claim 1, wherein at least one of the steps of excitation of the sheet material and the measuring of the sound waves emanating from the sheet material is carried out in a contacting fashion.

10. (Currently Amended) An apparatus for determining the limpness of sheet material comprising:

a source of sound for irradiating the sheet material with sound waves,

a measuring device for measuring the sound waves which emanate from the irradiated sheet material, the measuring device comprising both a reflection sensor for measuring the sound waves reflected by the sheet material and a transmission sensor for measuring the sound waves transmitted through the sheet material;

an evaluation unit for determining the limpness of the sheet material on the basis of the sound waves captured by the measuring device, the evaluation unit being arranged to form a mathematical ratio of the reflected and transmitted sound waves measured and to use said mathematical ratio to determine the limpness.

~~wherein the measuring device has both a reflection sensor for measuring the sound waves reflected by the sheet material, and a transmission sensor for measuring the sound waves transmitted through the sheet material, and further wherein the evaluation unit is arranged to form a mathematical ratio of the reflected and transmitted sound waves measured, said mathematical ratio being usable to determine the limpness.~~

11. (Previously Presented) The apparatus according to claim 10, wherein the evaluation unit is arranged to form a mathematical ratio of the reflected and the transmitted sound waves emanating from a common place on the sheet material.

12. (Previously Presented) The apparatus according to claim 10, wherein the measuring device comprises a broadband microphone in order to determine the frequency spectrum of the captured sound waves.

13. (Previously Presented) The apparatus according to claim 10, wherein said measuring device comprises a unit for determining the transit time of sound waves in the sheet material.

14. (Previously Presented) The apparatus according to claim 10, wherein said measuring device comprises a unit for determining a property of the sheet material other than the limpness.

15. (Previously Presented) The apparatus according to claim 10, wherein at least one of the source of sound and the measuring device is in contact with the sheet material to be measured.

16. (Previously Presented) The method according to claim 1, wherein the property of the sheet material other than the limpness that is determined as selected from the group consisting of the nominal value of the sheet material; the weight per unit area of the sheet material; and the degree of soiling of the sheet material.

17. (Previously Presented) The apparatus according to claim 14, wherein said unit for determining a property of the sheet material other than the limpness is selected from the group consisting of the nominal value of the sheet material; the weight per unit area of the sheet material; and the degree of soiling of the sheet material.